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C.D. Smallwood
'73

Virginia Wildlife

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Virginia's Wildlife and Related Natural Resources
and to the Betterment of
Outdoor Recreation in Virginia**

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Electronic Nature

ONE of the saddest, and in its way frightening, stories to come to my attention recently - and, Heaven knows, there have been more than enough of them - concerned a weekend Boy Scout Camporee held at the Presidio in San Francisco and attended by 2,425 youngsters. Grant that almost anything is possible in California, but this camporee did beat all, and would have left the kind of Eagle Scout who used to go to the South Pole with Admiral Byrd in a state of utter bewilderment, if not despair.

The director of the camporee explained to reporters, some of whom one presumes were once Boy Scouts themselves, that he was trying to bring today's scouts into the "real world." In consequence, the hapless campers were given the task of searching the *San Francisco Examiner* for stories concerning violations of Scout Law, attending a rock concert by a combo of Explorer Scouts, and being bombarded by a helicopter which dumped overboard 15,000 fortune cookies containing quiz questions.

Nor were these all of the indignities inflicted on these unfortunate youths. The main event of the interminable weekend was a Magic Forest Nature Trail Event, described as a marked course, with concealed cassette tape recorders giving out bird calls and assorted barks and grunts and roars one might expect to find in the deep woods.

This is scouting? This is the "real world"? If they looked hard enough, the Boy Scout leaders should have been able to round up a few real squirrels and rabbits and such instead of cassette tape recordings, for Pete's sake! Perhaps they have become so accustomed to people dressed up like animals at Disneyland that they are no longer able to recognize the real thing.

The article failed to mention what the hardy California campers had to eat, but it's a fair bet that they were fed McDonald's hamburgers dressed up with outdoorsy names like wolfburgers or Kit Carson chopped steak. I would have been bored stiff, and so would all the other boys with whom I was associated in the three years or so when I was a Boy Scout myself.

As scouts went in those days, I must admit that our troop wasn't much to brag about. Most of us retained our Tenderfoot status for a disgraceful length of time, and few of us ever summoned up enough initiative to acquire enough merit badges to get beyond the rank of Second Class Scout. However, we were great on camporees, and whenever we went on one we won all sorts of prizes for identifying birds and trees, best-tended camp areas, best meals served at cookouts and the like. Our scoutmaster was naive enough to think that that was what scouting was really all about.

I have long since lost touch with most of my fellow scouters, but I did run into one not long ago and after a while we found ourselves talking about one camporee in the freezing dead of winter during which we were served what we agreed must certainly have been the best barbecued lamb in the history of the world. Can you imagine those poor California scouts a generation from now recalling the delights of the electronic nature walk? — CHESTER GOOLRICK

Reprinted from *Rural Virginia*.

LETTERS

New Purpose for Old Bridge

MY greatest summertime enjoyment is fishing and crabbing. Isn't there some way possible that the James River bridge could be left as is for a time of relaxation and clean fun?

Mrs. Virginia Long
Hampton

Part of the new James River Bridge for US 17/258 has been completed and is in service. The Department of Highways and Transportation has turned over 1,500 feet of the old bridge to the City of Newport News for recreation purposes, and people have been fishing off the span since early August. We have asked the Coast Guard for permission to preserve another 1,500 feet of the old bridge, and will turn that section over to the city if we receive approval. —Glade Little, Asst. Pub. Infor. Officer; Virginia Dept. of Highways.

Not Fair!

I note that the general hunting season for rabbits, squirrels and quail opens on Monday, November 10. I am a student who loves to hunt, and as long as I've been hunting, the general season has opened on a school day. To me this seems very *unfair!* How would you feel if you woke up one winter morning to go to school and found that your father and older brother had gone hunting and left you behind because they knew you had school?

Discouraged
Norfolk

The general hunting season in Virginia begins on a weekday to lessen opening day's impact on wildlife populations. Increased hunting pressure and higher kill generated by a weekend opening might possibly have detrimental effects on some game species. —Ed.

Blowtoad

I read with interest the article "Blowtoads" by M. L. Masselin, but was disappointed that the fish in question was not more precisely identified. It is *Spherooides maculatus*. While the flesh of this fish is relatively boneless and a culinary delight, the liver and gonads of the adult can be deadly, as they contain the alkaloid poison tetradontoxin which is chemically allied to muscarin produced by certain poisonous mushrooms of the genus *Amanita*. While curator of the Miami Seaquarium I was brought in as a consultant in the case of an elderly woman who had died within an hour after ingesting the liver of one of these fish. A number of related genera from the tropics have poisonous flesh as well.

Although your writer described blowtoads as "repellent creatures," I disagree. In the aquarium they are things of remarkable form and beauty, and also display about as much intelligence as a fish is capable of showing.

Craig Phillips
Silver Spring, Maryland

Although Mr. Phillips didn't mention it, I understand the roe of these fish is also poisonous. Clean them carefully. —Ed.



Fishing a FORBIDDEN RIVER

LOOK OUT! I think you've got Old Clyde," Glen yelled as Benny raised his spinning rod high above his head.

The smallmouth bass broke the surface of the river and fell back with a splash. I let out a low whistle. This was Old Clyde all right - a standing name we'd given to any bass that went three pounds or more.

This one would go four pounds or more, but fate stepped in and denied Benny a state citation. A few miles further down the river, the rope stringer used to tie the bass to the canoe was severed on a sharp rock, and Clyde lived to fight again.

No matter. We had pictures to prove we'd taken a monster smallmouth. Before our two-day trip was over, we'd catch a dozen more, though none quite that big.

Besides, we couldn't eat the fish anyway. My two brothers and I were fishing Virginia's only fish-for-fun warm-water stream - the North Fork of the Holston River in Southwest Virginia.

Today, you can catch and release fish from the North Fork of the Holston, but you can't make a meal of them. The fish carry heavy doses of mercury. And though the plant that put the mercury in the river - Olin Corp. of Saltville - has been closed since late 1972, mercury levels in the fish still exceed federal guidelines and are considered dangerous.

Mercury was found in the flesh of the fish in 1970. The State Board of Health immediately banned all fishing in the river along a 75-mile stretch from Saltville to the Virginia-Tennessee state line near Cloud's Ford.

The Health Board, however, lifted the ban on fishing

By GARVEY WINEGAR
Waynesboro

Jan. 1 of this year. Fishing-for-fun is allowed now. You just can't eat the fish. But if ever a river provides fun fishing, the North Fork is it.

My brothers and I grew up on the river near Gate City. In its riffles and deep holes, we learned to swim and to catch redeyes (rock bass), sunfish and carp. Our equipment was simple. A cane pole, a can of worms, an unquenchable optimism. We caught more sunfish and carp than anything else. In fact, we had to move away and then come back as adults with spinning reels and artificial lures to learn that the Holston provides some of the best smallmouth bass fishing in the state.

True, we sat in our front yard in the summertime and watched long, sleek smallmouth cruise the rock ledges of the river. Some of them looked monstrous, but we didn't know how to catch them.

The secret, we've since learned, is a small stubby lure such as the Rebel Humpback or the Bill Norman Quarterback. The lure should be a shallow runner so it won't get hung on the rock ledges, and a "rattler" if you can get it. Colors? You really need only two combinations: the black and white or the black and gold.

We had a dozen Quarterbacks distributed among Benny and his two boys, Glen, my own son, and me when we floated the river. We tried other lures that had done the job on other streams, but we got nothing but casting practice. The Quarterbacks were consistent fish-getters.

The North Fork of the Holston is an ideal river for float fishing. It's a combination of beautiful riffles and long, still stretches - an easy river to ride, and one you can feel comfortable on.

A pair of tennis shoes is a good idea in the summer because the water gets low in the riffles. A flat-bottomed johnboat, even a canoe, will hang and someone - usually the man in the back - will have to step out and push the boat off.

An ideal overnight trip is the stretch of river between Hilton and the Virginia-Tennessee state line, a distance of about 20 miles. We made the trip in two canoes and a johnboat. By allowing two days for fishing, you'll have time to anchor just below any of the riffles that look especially promising and fish them thoroughly.

Also, you'll want to take your time and soak up the beauty of the rugged Southwest Virginia mountains. Much of the area you'll travel is remote and unspoiled, although civilization may be just over the steep ridge you're gliding past.

The Holston is home for quite a large number of ducks. They'll come off the water in squawking protest as you round a curve in the river. And from time to time, you'll see a mama duck lead her half-dozen offspring in a tiny convoy to the shelter and obscurity of the willows along the bank as the boats slip by.

Little green herons (local people call them shy-pokes) sneak along the banks like Peter Lorre, or take flight downriver a few hundred yards with legs dangling to settle again until the boats catch up with them. Then they'll fly ahead again, sometimes keeping up this game for a mile or two.

When an osprey left its perch high in a cliff to our left and crossed the river, I was sure I was seeing a rare sight. After reaching home, however, my dad said, "Oh no, that was a fish hawk. You can see them around most anytime." He was right, of course. "Fish hawk" is another local name for the osprey.

An interesting note on the history of the river: when



Glen Winegar brings in a struggling smallmouth.



You can catch redeye like this all day.

you go over a set of riffles or shoals, look back and see if the shoals form a "v" pointed upriver. If so - and a surprising number of them do form a "v" - then you've just passed over an old Indian fish trap, probably hundreds of years old.

How the Indians caught fish in them and how the stone structures have lasted through innumerable floods are questions that have been lost in antiquity. (Once you begin to look for them, by the way, these fish traps will show up in many state rivers. The Shenandoah River, for instance, is full of them.)

The Holston has plenty of put-in and take-out points along its 75-mile course. With the aid of Scott and Washington county maps, you can pinpoint highway bridges that cross the river and choose the length of river you want to float. A highway bridge and its right-of-way provide automatic access to the river.

A note of warning if you float the lower Holston as we did: Take care not to cross into Tennessee unless you have a Tennessee fishing license.

Since state boundaries aren't marked with bold lines on land like they are on a map, it's an easy thing to float from Virginia into Tennessee without even knowing it . . . until a game warden hails you from the bank.

But if you know what to look for, the state line is clearly marked. When you pass the point where Possum Creek flows into the Holston, you're within a mile of the Tennessee line. After another half mile or so, you'll see an abandoned quarry on the right in the face of a hill. The Tennessee line crosses the river at the quarry.

As I said earlier, the Holston is an ideal float-fishing river. It harbors no dangerous surprises such as unexpected rapids or white water, at least not in the lower section.

The surprises you'll encounter may be the size of the redeyes and the sunfish. Or the occasional channel catfish that will hit your lure. Or even Old Clyde himself. But these are surprises you can live with.

Eight Apples Equals Four Raccoons

Photos by Graham Moseley

By KATHERINE W. MOSELEY

THE raccoon is as American as corn-on-the-cob and apple pie. Why not? The animal was here with the Indians and appreciative of their milky, young ears of field corn. The Red Men prized the furry animals for flesh and fur and probably considered the young corn a fair trade for food and clothing.

Raccoon meat was tasty; raccoon fat was believed to be of medicinal importance; the heavy, durable fur was valuable for clothing and warm cover. It was said that Powhatan, of Virginia, presented Captain John Smith with a coonskin robe in the 1600's. Raccoon pelts were recognized articles of barter between the natives and the Colonists.

Thus raccoons became a part of Colonial life. The early settlers were also opportunists and knew a good thing when they saw it. A coonskin cap with the ringed tail hanging like a plume is now a legend as being the favorite headgear of the frontiersman. The furry skins made jackets or vests or blankets.

Corn was American and grapes grew in wild profusion, but it was the white men who brought seeds of fruit and even seedling trees. In time a raccoon ate an apple and approved of the fruit. Apple orchardists know well raccoons favor the juicy, tart sweetness that is theirs for the picking. We found out the fun way their methodical manner of apple eating.

A small mother raccoon and her three young gave us an insight into raccoon intelligence and ingenuity. Our young apple trees had a nice crop in the late summer. There is a trellis with a wide board about halfway between the two trees. We began to see each morning four well-chewed apples on this top board with four whole apples placed neatly in a row below the trellis. We suspected the squirrels or opossums, but the apples were



Incredibly rewarding to watch.

spaced too evenly. We watched at night and never saw an apple collector but each morning the pattern was the same, four eaten apples on the top rail and four whole ones on the ground. One night we took away two of the ground apples and one of the rail apples. The next morning there were again four chewed apples on the rail and four whole ones on the ground.

Determined to learn the answer if it took all night, we stayed in the darkened house. It became late; finally our eyes, somewhat adjusted to the dark, saw a larger raccoon followed by three smaller ones wandering leisurely around the yard. It was a slow-moving procession with many stops. They finally reached the trellis, and the mother hustled her young ones to the top and she followed. Each picked up an apple and, holding it like a person, in hands, began to eat. Then, at that late hour, the telephone rang. They could hear it through the opened windows. The alarmed mother smacked each small one and they all climbed down, still holding to their apples.

Our story of the mathematical raccoons is always bettered by other stories of other raccoons. One friend had her basement door unhooked by one who then unerringly pried off the lids to jars of fruit and preserves which were eaten, but the jars of pickles and tomatoes were left untouched. There was the raccoon who came to the steps of the porch where a neighbor sat to strum his guitar. When he stopped playing, the raccoon left. Another friend was careless about leaving small tools around and swore he was being robbed until he surprised a raccoon beside his car one night trying to pick up a wrench. An upended barrel used as a summer picnic bar, had a small hole in the top. When it was rolled away in the fall, there was a beer can opener, a

fountain pen, a pocket knife and an earring under it. Any bright, shiny object seems to fascinate the animal who claims it as its own.

We have seen at least five raccoons on our acres and imagine they are a family. The great handsome one we credit as the father. If so, he has never been seen with the mother and the three young and seems free of family responsibility. We are most impressed with his beauty. Standing at dusk on hind legs under the birdfeeder there is strong resemblance to a bear cub. When he comes down on all four feet we see a heavily built, stocky animal. The average raccoon may weigh around fifteen pounds, but an adult male could run the scales close to sixty.

All raccoons seem to wear black-stockinged feet. The hind legs are longer than the forelegs. On the forefeet the toes are more like fingers with great sensitivity and dexterity. The large raccoon sometimes walks on hind feet under the light outside the window with right front paw extended, remindful of a man with a divining rod. Sometimes it sits on its broad stern to carefully examine some object it has found.

The dark gray body is flecked with tan; there are black markings around the eyes with prominent white patches which has given it the name of Masked Bandit. The pointed ears stand over a finely chiseled head. The tail is long, bushy and banded with rings of black and buff. The animal seems intensely alert. We are in coon-hunting country, which may explain its uneasiness. If the raccoon has the slightest chance, it can get away from a pack of dogs. Climbing is one of its specialties, and while not a swift runner, it gets over the ground quickly with ears back like a cat. Raccoons seem able to make quick decisions when faced with an emergency and either go up a dark, dense tree or make it to a safe underground hideout. The underground cover is safest.

Many a dog will hesitate to face the fury of an enraged raccoon. For its size, which is considerable, the animal has great strength and knows how to use it. Treed by dogs, a raccoon has been known to drop into the surprised howling mob and cut, slash and rip its way to freedom. Legend has it that a coon will drown a dog if it can get the dog into water.

This makes more surprising the fact that one humble opossum sent the large raccoon slinking away from the board that nightly holds food under the lights outside our kitchen door. Surely the meek opossum could do no harm. Or did the proud raccoon sense shame at scrounging food with such a lowly creature?

Raccoons have interesting personal habits such as stretching out on their back on a tree limb in the sunshine with forepaws over their eyes. They seem to like the warmth of the sun on their fur. It is not well-known that they use their voices as often as they do. There is a surprising call, similar to but not as eerie as the screech owl's. They also growl, hiss or make a shrill trilling sound.

Although blessed with the gifts of the senses as inherited talent, the animals' greatest asset has been adaptability. They followed man when he began clearing land for agriculture in order to use the forest's edge for protection with easier access to fields, deep woods and streams. They find food in the water, in the fields, in fruit orchards, in poultry houses, in garbage cans. Even so their conflict with man is not in the nature of a scourge.

They may prefer to den in a hollow tree but will accept woodchuck burrows, caves, drain tile or under buildings. The raccoon does not hibernate in the deep sleep of the woodchuck, but if the temperature drops well below freezing it will curl into a ball in its den and sleep until the weather moderates.

The male raccoon begins to seek a mate in late winter. The raccoon mother prefers a tree cavity as a den as it is safe, dry and cozy. Nine weeks after mating three to six babies are born already furred with distinctive raccoon markings. It is not known if the father helps with the care of the young, but the mother seems to raise them alone. When the small ones are about two months old, they scramble out of the den to follow the mother through the woods and to the nearest stream. The young have not yet learned the smell of danger as has the mother, and if she is alarmed she chases her children up a tree. If they hesitate, she spansks them sharply to get them up. Then she leads the enemy away before returning to her babies. They have then learned that danger smells like a dog or a fox or a man.

The animals have long been a part of the folklore and literature of our country. Recently they have been the subjects of delightful best-selling books. Their beauty, intelligence and bravery are of interest to all who admire wildlife. They are unpredictable, mischievous, insatiably curious, exasperating and fun. In spite of man's increasing population, the raccoon is not only holding its own but adding to its range and numbers.



"The meek shall inherit the food."



You Won't Get a **BANG** Out of This

By JOE WISEMAN
Virginia Beach

towards putting meat in the freezer is not the only bonus the bow hunter enjoys. There isn't a more beautiful time in Virginia to be out in the woods than during the last two weeks of October. The autumn colors and normally near-perfect weather combine to make these the "premiere days" of the year for all outdoorsmen. The bow hunter can hunt his favorite range during these glorious weeks, and probably not see another person. When the general season opens, however, the same area may be literally bristling with rifle and shotgun barrels. This brings up another highly important matter: the chance of being involved in a hunter-related accident during the archery season is infinitely less than during the general open season. The shorter effective range of the bow and greatly reduced number of hunters in the woods during this period really stack the odds in the bow hunter's favor.

WITH black nose cautiously testing the air and upright ears nervously twitching, straining to isolate any foreign sound, the six pointer started across the abandoned logging road. He was just yards from the safety of a hardwood thicket when the "twang" of a bowstring sounded. The buck lunged, catapulting towards the dense cover. A red fletched aluminum hunting arrow twanged off a small sapling and ricocheted harmlessly down the road. A camouflaged figure stepped from a bush, walking quickly the 20 yards down the rutted road to where the deer had crossed. The pre-dawn shivering and hours of waiting add spice to the drama that will remain forever in his memory.

Across the nation, as well as in the Old Dominion, sportsmen are learning that archery can add a new dimension to their outdoor experience. Some become such enthusiastic devotees of the sport that they specialize in archery alone, but this is the exception. Most sportsmen appreciate the advantages of hunting with both bow and gun, and would no more think of retiring "Old Betsy" than discarding their favorite fly rod.

Virginia offers extended seasons to bow hunters, allowing them to hunt deer from October 13 to November 8 in any county which allows deer hunting. Since the regular season in most of the state opens in mid-November, the hunter shooting a bow obviously has the jump on his gun-toting counterpart. A head start

Becoming a successful bow hunter makes special demands on a person - demands that not everyone is willing to meet, or even capable of meeting. The greatest of these is the discipline required to achieve and maintain a high degree of proficiency with the bow, while recognizing the limitations of the weapon and exercising the restraint necessary to prevent its misuse.

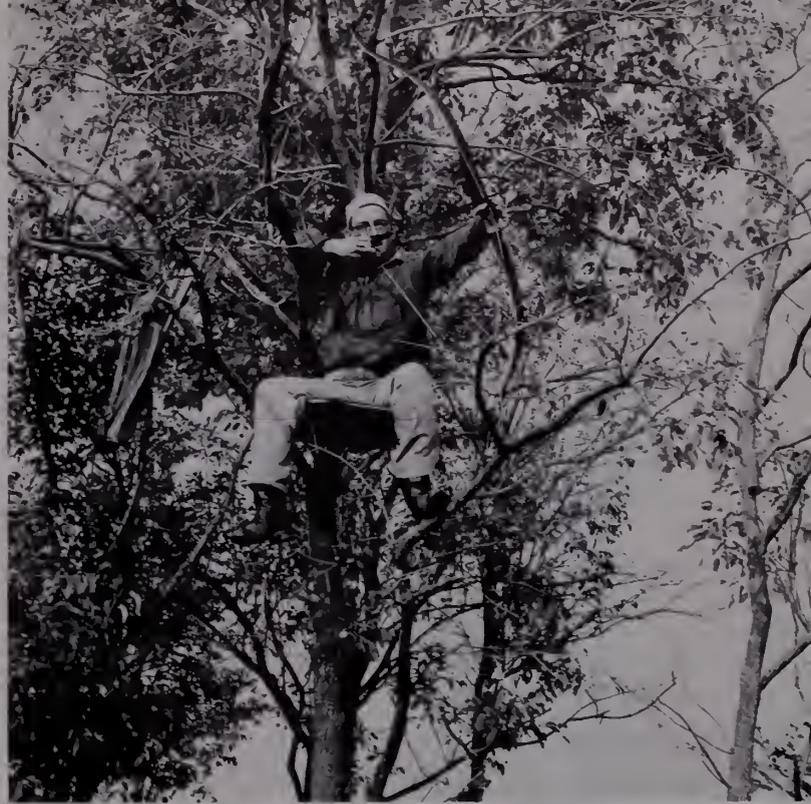
If you are the kind of hunter who, because of business or other commitments, can devote little time to the sport aside from that actually spent in the pursuit of game, bow hunting is definitely not for you. "Tuning up" for opening day to many hunters means blowing the dust off their pet 30-30, or slug gun, and squeezing off a few at a handy tin can. Not so for the bow hunter. If he is serious about his skill, he will have "kept his hand in" by shooting at least occasionally all year, and by late summer he will begin concentrating in earnest. Long hours of practice are necessary just to hone up archery skills that take months and even years to develop. If you have considered bow hunting, or are considering it for this coming season, remember this: you can't be a capable bow hunter until you have first become a capable archer. This is just another way of saying, you need to shoot at a lot of paper bulls-eyes before raising your sights to live game.

Getting started in archery without competent guidance can be a bewildering and frustrating experience, a fact many people learn too late. Equipment that

doesn't fit, or that is otherwise poorly chosen, can discourage even the most eager and willing beginner. If you are a fisherman, you can appreciate the advantage of balanced tackle - matching rod, reel, line and lure together. The same principle applies in archery. The archer must, first of all, select a bow that is suited to his size, physical strength and personal hunting style. Arrows must then be carefully matched to the weight of the bow (this is of utmost importance) and draw length of the archer with points appropriate for the type of game. Unfortunately, beginners often make the mistake of buying a weapon to fit the game - not the archer. It matters little that your bow has the capacity to stop a grizzly bear if you can't draw and hold steady enough to find your target in the sight window. To develop proper shooting habits, which always precede exceptional shooting skills, you must use a bow that you can handle - not one that handles you. Long bows are easier to shoot but more awkward in the brush. Short bows are handy but difficult to master. Compound bows are expensive but draw easily and shoot fast.

The first step to becoming a capable archer is learning something about modern archery equipment. A good way to start is by purchasing a copy of *THE ARCHER'S BIBLE*, written by Fred Bear and published by Doubleday and Company. Most sporting goods stores stock this helpful book, as will many public libraries. Careful study of each chapter will acquaint you with the basics of archery, modern tackle, and the terminology of the sport: all valuable assets to the aspiring bow hunter. Next, exhaust every possibility of getting help from an experienced archer. If you know of a club or even an informal group who shoot together, by all means seek them out - you will be welcomed. Sometimes a sporting goods shop that sells archery equip-

New equipment innovations such as the compound bow have improved archers' success.



Commission photo by Kesteloo
Tree stands are effective, but shooting from high angles requires special practice.

ment will have a knowledgeable archery specialist who can advise you. Make sure he is currently active in the sport, however, and not just someone who has memorized the manufacturer's sales brochure. If after your best efforts you still haven't come up with a flesh and blood archery buff, sit down and write a letter to Nancy Lee Western, Corresponding Secretary, Virginia Bowhunters Association, Route 2, Dogwood Lane, Vinton, Virginia 24179. Ask for the name of the nearest bow club in your area, and the names of several of its officers. I cannot conceive of anyone in the state of Virginia living more than one hour's drive from someone who is active in organized archery. The assistance and encouragement an experienced archer can give a person just starting out is well worth the time and trouble it takes to find him.

Once you purchase your archery tackle and learn the fundamentals of good shooting, you can practice in your own backyard (providing you have a proper backstop) all year round. While escalating ammunition costs force many gun enthusiasts to shoot less and less, the archer is limited only by time and interest, not his pocketbook - a refreshing change in these inflation-ravaged times.

When the trees start painting the Blue Ridge with bold splashes of color this fall, and the first frost signals a call to arms for Virginia's hunters, those who have prepared themselves will venture forth bow in hand, in quest of the elusive whitetail deer. Maybe this is the year for you to slip through pre-dawn mist and take a stand near an old logging road: that six-point buck just might happen by.

BOW HUNT "WHERE"?

By W. R. McCABE III
Chester



A FOG, being drawn up by the early morning sun, was moving through the tops of apple trees; dampness filled the air. My eyes were glued to a game trail that snaked its way through the forest and out to the apple orchard, then fanned out in all directions. Seated on a small platform ten feet up a white oak, I waited in excitement to see my first deer on opening day of the Virginia bow hunting season. It was October 15, and all the beauty of fall was beginning to show itself. My legs felt cramped from standing in the tree for an hour before daybreak. Not wanting to move, I just shifted my weight from one leg to another.

Suddenly a noise caught my attention and I became alert. My eyes strained to see a large doe standing on her hind legs, stretching her neck to reach that last ripe apple hanging stubbornly to the tree. She pulled it loose, took only one bite, moved out of my direction and faded into the fog.

Having stood in that tree until 10 o'clock, I considered my first morning hunt a success even though not a shot was taken. I'd spotted game and had the experience of knowing I'd picked the right place in advance. Selecting a place before season in which to insure the best prospect of seeing game is really what bow hunting is all about.

Throughout Virginia there are open to the early season bow hunter many public lands which offer excellent deer and small game hunting. National Forest land located in our state's western mountains covers thousands of acres. I have hunted some of these lands by first acquiring maps from the Game Commission or from the U.S. Forest Service, George Washington National Forest, Federal Building, Harrisonburg, Virginia 22801. Studying the maps, which show access routes into remote portions of our mountain ranges, one can find likely areas in which deer may concentrate. The first time I obtained the maps I took my family on a Sunday drive to look for areas I had located on the

map. That was an experience! I felt like an explorer searching out unknown places. We found these maps to be accurate and easy to read.

Hunters of Virginia also have use of lands that were bought with our hunting license fees: 166,000 acres. Detailed maps for much of this property may be obtained through the Commission of Game and Inland Fisheries. They contain pictures, and information on acreage, approximate population of deer and other game, and where the best hunting can be found.

The Game Commission's Gathright Wildlife Management Area, an 18,392 acre tract including 14 miles of the scenic Jackson River, is one of the most beautiful management areas in the state. Anyone wishing to hunt this area should do so soon for time is running out. The Army Corps of Engineers is constructing a large dam that will flood the lower portion leaving only a steep high mountain.

Wildlife refuges, state and federal islands, also offer the bow hunter good to excellent deer hunting. Hog Island Waterfowl Refuge, 2100 acres on the James River in Surry County, is open to bow hunting for the entire archery season; permits are free. Chincoteague Wildlife Refuge, 9,000 acres on the Eastern Shore, offers the bow hunter the whitetail deer and the small Sika (Oriental) deer. Details are available from the Refuge Manager, Box 62, Chincoteague, Virginia 23336.

Presquile National Wildlife Refuge offers the most exciting hunting of any place this bow hunter has yet found in Virginia. This area is wet, wild and swampy, containing cornfields and pastures. Deer by the hundreds are harvested to control the population. A drawing of names from post cards indicating hunter interest determines who is eligible for a two-day hunt.

Virginia is blessed with military areas in which bow hunting is allowed. Fort Pickett military reservation, located in three south central counties, has 45,000 acres which are open for daily hunts. Free permits may be obtained from the Provost Marshall's Office 8:00 a.m.-4:00 p.m. weekdays and 8:00 a.m.-12:00 noon on Saturdays.

A.P. Hill military reservation in Caroline County has 77,000 acres. Free permits are issued, with maps available from the Hunt Administrator, Bowling Green, Virginia.

These are just a few places throughout the state where our bow hunters are welcome to hunt. If you hunt these areas in Virginia, I wish you luck and hope you benefit from all these lands' natural resources. Maybe you already have a hot spot of your own where on an October day, that buck will walk by your stand. If so, keep your arrows sharp as each real sportsman would.

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

GAME COMMISSION SETS DUCK SEASONS FOR 1975. Waterfowl hunters in the Old Dominion this year will be able to take brant for the first time in several years and will also be able to shoot snow geese. The Commission has adopted a 50-day waterfowl season which will begin on Wednesday, November 26, 1975, and continue through January 14, 1976. The snow geese season will be December 16 through January 14 and sea ducks from October 1 through January 14. The goose season will begin November 12 and continue through January 20 except at Back Bay where the goose season will run concurrently with the duck season - November 26 through January 14. Hunters are reminded that the season is still closed on canvasbacks and redhead ducks. Waterfowl hunters are reminded that blinds on Commission lands will be available by drawing. Applications for the blind drawing are available from the Game Division office, Virginia Game Commission in Richmond and must be filled out and returned before October 15.

YORK RIVER STATE PARK CLOSED TO HUNTING. Located in James City County, York River State Park will be closed to hunting this season due to extensive construction scheduled to begin on the site in preparation for the opening of the park for the nation's bicentennial celebration. "Formal development of the park in the 2,507 acre area, which until now has been undeveloped land, will be completed in several stages," according to Ben H. Bolen, Commissioner, Division of Parks. The park property was acquired by the Virginia Division of Parks in 1969 and hunting and fishing had been permitted through a cooperative agreement with the Commission of Game and Inland Fisheries. No facilities were offered in the undeveloped area, which is predominately forested with a wide variety of trees and plants. Commissioner Bolen stated that, "the first stage of the scheduled construction will consist of a 2.27-mile access road to be built by the Virginia Department of Highways and Transportation from State Route 606 to Taskins Road in the interior of the park.

WILDLIFE FEDERATION'S HABITAT PROGRAM A BICENTENNIAL PROJECT. The National Wildlife Federation received a certificate of recognition from the American Revolution Bicentennial Administration (ARBA) for the Backyard Habitat Program developed by the Federation. The ARBA certificate of recognition and a Bicentennial flag were presented to the Federation in September as the National Wildlife Federation opened a new Nature Exhibit Hall in its Laurel Ridge Conservation Education Center at 8925 Leesburg Pike in Vienna, Virginia. The Backyard Habitat Program is aimed at encouraging homeowners to transform their gardens and yards into dependable sources of food, water and shelter for wildlife. More than 400 backyards across American have been certified by the Federation since the project was started in 1973 to create a network of mini-refuges for wildlife.

VIMS AND NASA DEVELOP FISH TRACKING DEVICE. The Virginia Institute of Marine Science in cooperation with NASA's Langley Research Center is developing an underwater remote fish tracking system to enable the study of fish which migrate as the result of pollutants originating from known point sources. Underwater listening stations pick up sonic signals from tiny transmitters attached to fish. The stations transmit location information back to base stations, which relay it to a computer. The computer sorts the information and plots the fish's position as it migrates through the study area. Any change in its migratory behavior as the fish enters the polluted area will be detected.

ndering. pheasants, crosses bet ck and Ch have bee specially- e Old Do ptember, 1 ts of ne e rare bir d. eas are in 7, Surry County and personnel, of work U. S. Bureau of U. S. Wildlife and the Vir- strain of U.S. December 5, 1957, and and four cocks of the July 27, From these birds, Iransians were sent to Ohio and Missouri and 16 eastern Iran- farm—in United States—are 18 hen Japanese green ph were flown to mission



Author shows couple of Smith Mountain stripers.

Smith Mountain STRIPER BOOM

By BILL COCHRAN
Roanoke

what is happening would be surprised to see it give up a 40-pound-plus fish. Even in the dead of winter, limit catches have not been uncommon.

On a recent trip to the lake, I was with Bob Cromer, a Roanoke chartered life underwriter who is considered Smith Mountain's top striper fisherman. He eased his 16-foot Boston Whaler out of Saunders' Marina one afternoon, in the lower end of the reservoir, and we roared out into the open water. Shortly, we came to a sunken bar where Bob had caught a 12-pounder the day before. Here he flicked on his fish locator-depth sounder.

"There they are," he shouted, pointing to the whirring dial of the locator.

For several seconds my eyes failed to focus on anything special the locator was telling Bob. It was recording we were over 35 feet of water that fell off deeper all around us. There also were some sunken trees. But it was a couple of thin, red lines dancing just above the 35-foot mark on the locator that had Bob excited.

"Those are striped bass," he exclaimed, motioning for me to get my rod in action.

I'd tied on a Shorty 75 Hopkins lure, which I rapidly let freespool to the bottom. Then, like Bob, I began to give it quick, flashing, fluttering up-and-down movements with my rod tip. I hadn't moved the Hopkins more than a couple of times when something walloped it and bowed the hefty bass rod I held into the shape of a new moon. Striped bass are tough, hard-fighting fish, and while this one wasn't as large as the one Bob had taken the day before, like all stripers he gave a good account of himself.

Then, suddenly, Bob had his lure into a much heavier fish. He bowed back on his rod, sinking the butt into his stomach. You move the Smith Mountain stripers as rapidly as you can out of the depths, because if you don't they'll wrap your line around a sunken tree. Of course, fish this size have something to say about how rapidly you move them. Indeed, some you don't move at all. While Bob battled his striper, one hit my lure and made a throbbing, line-peeling run to the nearest tree, tying my line neatly around one of the unseen branches. I had to break it off.

About then Bob was shouting for the net, and I was trying to take pictures. His fish weighed just over 11 pounds and measured 30 inches. The frantic action lasted 30 minutes. I caught another smaller fish and broke

DURING a summer evening last season, Charles Smith of Beckley, West Virginia, was fishing Smith Mountain Reservoir when he spotted the water near the mouth of a cove erupting with boils and splashes that could be spotted a mile away. A school of striped bass was herding some frantic bait fish, and lashing out at them like a pack of hungry wolves. The bait fish skittered nervously to the surface, and the big stripers boomed after them, kicking water skyward as high as August corn.

Smith, with his son-in-law hanging on, raced his boat to the action, skidded to a halt and began flinging buck-tail jigs. For several frenzied moments, the pair hooked a fish on nearly every cast, 12 in all, and landed eight, their limit of four apiece.

"A bunch of other boats moved in," said Smith. "I never saw the like of 10 and 12 pound line popping on Zebco reels."

The line-popping, record-breaking, striper-catching days finally have arrived at Smith Mountain, a deep impoundment that sends its blue waters fingering across 20,000 acres of farmland in the foothills of the Blue Ridge Mountains southeast of Roanoke. After a decade of uncertainty and often frustration, the state's striper program began budding into reality last year. This season, it is rapidly building on that foundation, and in the future the sport only should grow better. Already, the impoundment has produced a state record striper, 37 pounds, 9 ounces, and few anglers aware of

my line on a lunker. Bob shouted for me to grab one of his larger rods, a Fenwick saltwater popping rod with 20 pound line on a 6500 Ambassador reel. Then he was onto an even larger fish, a rod-ripping 14½-pounder, that measured 33 inches. Both of us quickly had limits.

A few weeks later, Bob was fishing a 1½ ounce Hopkins in the deep water of the lower end of the lake when he landed a 30-pound, 12 ounce striper. That day he made four casts and caught four stripers, three of them meriting state citations.

"This is going to be the best striped bass lake in the entire Southeast," Bob exclaimed, predicting that a state record soon would come from Smith Mountain.

The next day, even before news of Bob's big catch fully had spread across the angling grapevine, Samuel B. Taylor III of Vinton, came grinning and bearing a 37 pound, 9 ounce catch, topping by 3 pounds 9 ounces the old state record taken from the tailrace of Kerr Dam, May 1973. Taylor's lunker was caught on a 1½ ounce white bucktail jig in the Hales Ford Bridge area. The giant fish ushered in what some fishermen believe is a new era of striped bass dominance, with the Smith Mountain fish taking the limelight from the Kerr-Gaston stripers when it comes to jumbo catches.

Indeed, the Smith Mountain stripers seem to have several factors in their favor. First, the lake has an abundance of bait fish on which they are enjoying good growth. Secondly, the lake contains countless clumps of standing timber in its deep waters, and this is providing a good home for the big fish. You'll find the stripers right among the branches of underwater trees. The timber offers the fish, young and old, considerable protection, and it helps concentrate bait fish. Thirdly, the lake has numerous channels, drop-offs and bars with good oxygen content penetrating deep, offering the stripers an unending maze of migration routes and feeding areas.

The new sport is believed to be coming entirely from the Commission of Game and Inland Fisheries' put-and-take striper program. Utilizing stock from the state's self-sustaining Kerr Reservoir population, stripers are reared at a hatchery in Brookneal and released in Smith Mountain. Natural reproduction at Smith Mountain is uncertain, but not entirely ruled out for the future. Work with different strains of stripers may produce a fish with less demanding spawning requirements, one that could provide a self-sustaining population.

The present striper fishing generally falls into two categories: jump fishing and jigging. Jump fishing, that's what Charles Smith was doing, is the art of watching for schools of stripers feeding on the surface, then getting to them as rapidly as possible in a fast-moving seaworthy boat. Long flying spoons and jigs are good lures. This is a seasonal sport, and the action is best just after daylight and before dark. May and October are good months.



Bob Cromer battles Smith Mountain striper.

Jigging, normally done with a Hopkins spoon or bucktail jig, is a method of finding a school of stripers with a fish locator and letting the lure rapidly freefall to the proper depth or bottom, then jigging it up and down with the rod tip. This is how Taylor and Cromer caught their big fish, and in the middle of February! Trolling, which is a common method at Kerr, seldom is done at Smith Mountain. When the technique is used, mostly to catch suspended stripers, a Spot plug is a productive lure.

The striped bass boom has brought fresh excitement to Smith Mountain, bowing the rods, breaking the lines and delighting the hearts of fishermen. And the "Good Old Days" should be yet to come.

37 lb. 9 oz. State record landed by Samuel Turner.



By JUDY PRICE
Deerfield

AUTUMN

Photos by Paul Bratton



Red and gold leaves float serenely, symbolic of nature's winter sleep.

AUTUMN. And the earth is a chameleon: the forest floor reflecting the leafy sky above; that sky changing to imitate the surrounding weathered ridges; the ridges, the mountain chain, reflecting what has passed before, in the previous revolution. The mountains are the pioneers in this phase of the season's cycle, as they will be in the next. They reveal from their heights what is to come in the valleys below. They prophesy.

Each ridge takes on the hues of the one to the north of it, and a wave of greens and golds, through the blushings and rusting of the reds, to the deadened browns sweeps the land, traveling southward, branching sometimes to the east and west, to the higher peaks, moving always more swiftly along the mountain tops, drawing

a network, a web, of color and design across the earth.

This is the obvious feature of autumn, the one boldly shown. Still there is another movement within the changing of the season: the one that brushes the last subtle blossoms into bloom, the tender cooling breezes, the softening of the sun; the setting of the spark.

Beneath it all, the gleaming of the tulip tree tresses, the flaming of the dogwood leaves, are the small autumn flowers, each with a kind of majesty - some with a hint of mystery, growing; many just beginning as all other life begins to fall.

The late ladies'-tresses begins, an orchid, a slender stalk holding the pale, lipped flowers, a ladder of ivory rungs. The fragrance is of autumn, but as ambrosial as arbutus and spring. It comes, sometimes alone, along the wooded roadsides, sometimes in numbers, filling a damp, shadowed hollow with the quiet bloom. It comes when the velvet-gowned cardinal-flower with petals in flight has reached its peak and begun its decline, and it comes as the deciduous trees are feeling that first autumn glow; preparing for that final fiery display.

Through the woodlands, begun early in the heat of summer, the pinesap grows, nodding its warmly tinged bells from the fleshy stalk. The plant is not green, but a fair shade of pink and yellow from its base, up about the scaly leaves, to the hanging waxy flowers. It is a saprophytic plant, taking its food from fallen trees and rain-softened leaf molds.

It belongs to the wintergreen family; an odd sister of the spotted wintergreen and the tiered pipsissewa. Still



Cardinal-flower

it grows as they do, quietly with drooping flowers, in the woodland patterned with oaks and conifers. It lingers with them into October, yet holding bloom. And then, with the baring of the deciduous branches, the pinesap withers, sets its seed in round puckered pods, and dies. Many of its family remain in green through the year pledging their nature to the name.

Of the autumn, the goldenrods and asters are perhaps the greatest in number, the best known and related to that season; painting the fields and meadows as the leaves have painted all else. Each of these has a small native member of its family that has crept into the forest, showing as fair a color in solitude as have the ones in the mass.

The turtlehead, the gentian; each is a flower of the autumn, and neither often found, sometimes the gentian along the windy peak of a mountain, the turtlehead sometimes along a sand- and stone-edged stream, but not often. Their illusive ways make them an unusual discovery, a notable reward for wanderings, for searching. Just to see them is an agreeable reason to tramp the ridges and hollows, to climb about the lichen-covered stone and browning orpine to the mountains' tops, to hike the trails. But then no reason is necessary. The season excuses; the autumn explains.

It is a time for flowers, for the small gentle bloom, for the more conspicuous ones. It is a time for the changing of directions: the blueberry bushes, having given fruit and gone to seed, turn their leaves to a deep scarlet hue and redden the clearings and hillsides, for appeal.

The trees drop their leaves, for survival, closing that passage between twig and leaf in order to preserve moisture, moisture that is precious in the next season when the ground is frozen and releasing none. The squirrels inspect their winter food pantries. Some furry mammals burrow. Some birds begin to fly.

Autumn is the revolution in motion, turning, each being preparing for the restfulness of winter, the peace to come; each being preparing for the harshness, for the challenge. Autumn shows in its blazes the last fire of the warmer seasons and the birth of the freezes, of the crystal dawn, of the lifted haze. It is not death that it reveals in its turning, but the desire for life, the preservation of it in the working.

The leaves die. They have their last flutter in the breezes and a kaleidoscope of shades. They are a mosaic in hanging, in that last flurry, and upon the ground. They give beauty. And by their death, they give life to the one that held them for a summer, the one that bore them in the spring, and they give covering and protection for the ones they come to rest upon.

With autumn there is death and life, death for life, and the turning from season to season, the revolution continuing, the completion of another phase. In gentleness, and force, it is survival. Autumn is the beginning and the end: a reflection of the past, a revealing of that which is yet to come.

OCTOBER, 1975



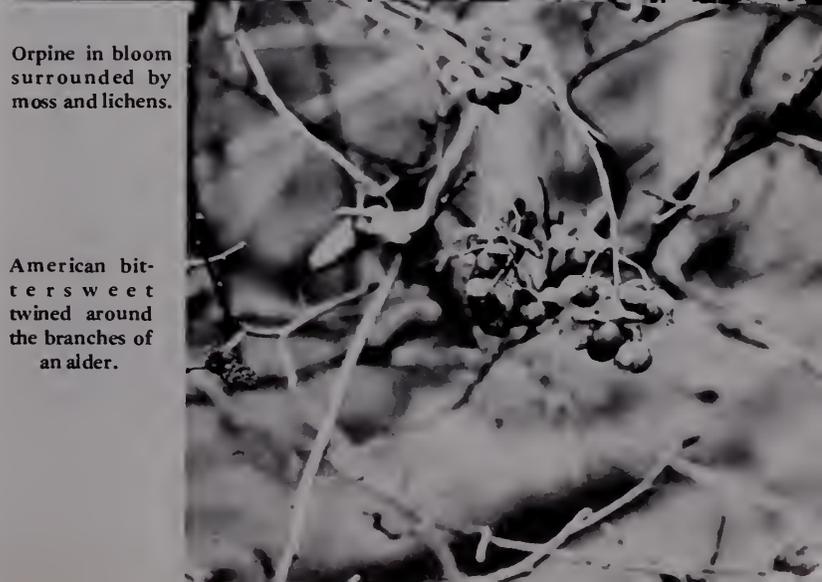
A remnant of the past, a few chestnuts can still be found during a Virginia autumn.



Pinesap in bloom.



Orpine in bloom surrounded by moss and lichens.



American bittersweet twined around the branches of an alder.

Timberdoodle

By BOB GOOCH
Troy

SOMEONE has estimated the annual Old Dominion woodcock harvest at approximately 20,000. That is a mere fraction of the birds that pass through or spend the better part of the year in the state. Someone else has decided that over 90% of migrating woodcock spend the winter in Louisiana. If there are nine times the number of woodcock in Louisiana that there are in Virginia, there must be precious little room for other winter birds in the Bayou State!

True, biologists tell us the major migration routes lie west of the Appalachian Mountains, and it is also generally agreed that while New Brunswick in Canada is a major breeding area for the long-billed birds, most of them *do* winter in Louisiana.

The fact remains there are a lot of woodcock in Virginia - just about any month of the year. But because so many are taken by bird hunters who shrug them off as snipe, true harvest figures will be hard to come by until hunters are better educated as to the ways of the timberdoodle. A few woodcock even nest in the Old Dominion, bringing off their young in early spring.

The snipe is also abundant in the Old Dominion. It has a long bill also, but is much smaller, averaging only 4 to 5 ounces as compared to the 6- to 8-ounce snipe. The snipe's body is more boldly striped and its legs are longer. And while it flies high during migration, it takes off low and erratically when flushed.

Let's take a look at the woodcock, that odd bird with the long beak, big eyes that permit it to see in a circle without turning its head, and tasty white and dark meat to grace the hunter's table.

The woodcock and snipe are of the family *Scolopacidae* which also includes the common sandpiper. The woodcock's scientific name is *Philohela minor*. Common names include timberdoodle, wood snipe, snipe and bog sucker. Most hunters, however, know this fine little game bird as timberdoodle or simply woodcock. Only those who do not understand or appreciate the bird call it snipe.

The woodcock is a chunky little bird, and a bit heavier than the bobwhite quail. Male birds will average a smidgeon over 6 ounces, but big ones may go almost to 8. The female is larger, averaging 7½ ounces or more, with jumbo specimens going well over 9 ounces. The birds are 10 to 12 inches long.

The woodcock's bill gives it away. Even in flight it is very conspicuous and awkward in appearance. Earthworms are the principal diet of the woodcock, and the

long beak serves its owner well, probing the soft earth for worms and grubs. A feeding timberdoodle leaves visible borings in the earth. The snipe has a long bill also, one of the reasons the birds are confused.

The woodcock's legs and neck are short, and its big eyes are set well back on its head. While its orange-tinted plumage is very handsome, it also blends well with its surroundings. Narrow tan crossbands are set strikingly against a black crown. The timberdoodle's rounded wings and tail help distinguish it from the common snipe. Clocked at 13 miles per hour, the woodcock is no speed demon.

The timberdoodle is strictly an eastern bird. Few are found west of the Mississippi River. The popular game bird nests in New Brunswick, Nova Scotia, and farther north in Canada, but when freezing weather seals the northern marshes the strange little bird heads south - all the way to Alabama, Georgia, Louisiana and Mississippi. All don't penetrate the Deep South, however, and hunters take plenty of timberdoodles in the Upper South - the Virginias, the Carolinas, Tennessee and Kentucky. They are less predictable in the more northern states though, being more abundant in mild winters.

Some woodcock seem less wary of the weather than others. While their long bills are tough and effective worm diggers, they cannot penetrate ice and the frozen crust of the cold earth. Such conditions drive them south to warmer climes, but a few hardy specimens seem to take up more or less permanent residence in the Old Dominion, living around springs where the earth does not freeze. Some wildlife observers report seeing them nesting in the snow during a late winter storm.

Transient birds tend to blend with local breeding stock and are often found together in much of their range.

Migrating birds travel mostly at night; hence, their movements are often a mystery. This characteristic makes woodcock hunting a risky proposition. A hunter may visit a swamp one day and enjoy excellent shoot-
"His First Bird"; painting by Clinton D. Trefethen of Baltimore. Photo by F. N. Satterlee.



ing, only to return the next day and draw a blank. It's a disappointing, but cold fact of the woodcock hunter's life.

No doubt the best woodcock hunting in America is found near the extremities of its migration route - Louisiana during the winter months and the Northeast in the early fall. En route the best shooting lies along the western slopes of the Appalachian Mountains. The hunting is probably better in West Virginia than it is further east in the Old Dominion, but that is not to say there is no good woodcock hunting in Virginia.

Swamps, wet woods and thickets, wetlands, alder groves, and wet leafy bottom lands favor the timberdoodle's feeding habits, so look for it there. Abandoned farms are good if water is available, and don't overlook higher ground near streams and marshes. The birds seem to like these spots for sunning.

In the open the woodcock is not a tough target. It rises suddenly, but will level off 7 or 8 feet above the ground if there is nothing to obstruct its flight. Compared to the thundering flush of a grouse or quail, it presents almost ridiculously easy wingshooting under such conditions. However, a bird flushed from a thicket or wooded area may fly almost straight up, attempting to clear the trees before leveling off. Experienced hunters learn to anticipate its flight depending upon the type of cover it is found in.

Except for a soft twittering sound made by its wing feathers, the timberdoodle's flight is silent.

The woodcock flies on a steady course as opposed to the erratic, somewhat twisting flight of the snipe.

The woodcock will sit tightly for a pointing dog, flushing only at the last moment. This characteristic endears it to the wingshot and bird dog fancier.

In the better woodcock territory hunters train their dogs specifically for timberdoodle hunting, though the bird's scent is distinctive and some dogs do not like it. Most good pointing dogs will point a woodcock if they run across one, but few quail or grouse dogs know how to hunt them. The hunter can overcome this by working likely woodcock cover.

All pointing dogs can be trained to work woodcock, but the wide ranging pointers and setters of the quail fields are not generally as effective as the closer ranging German short-haired pointers and Brittany spaniels. Still, some of the best woodcock dogs in the country are English setters trained for the job. A woodcock dog should be a good retriever as the birds often fall in dense cover, and their excellent camouflage coloration makes them difficult to spot.

Light field loads are fine for the woodcock, as it is not a tough bird to bring down. Sizes 8 or 9 will do the job. The gun should be light and easy to swing in the often thick cover. Its barrel or barrels should not be over 26 inches long. A light 20 gauge double is probably as close to the ideal as you can get, but a light 16 or 12 will take birds also. Some hunters prefer automatics or repeaters.



This acrylic woodcock painting is by Carl Knuth.

While grouse and quail hunters take many woodcock every season, the bird's preference for wooded areas is most likely to put it in the path of the grouse hunter. Mixed grouse and woodcock bags are common.

The migrating woodcock comes under the jurisdiction of the U.S. Fish and Wildlife Service. This body sets the bag limits and outside season dates. The Commission of Game and Inland Fisheries works within this framework. Bracketing the ideal weeks is not easy, as so much depends upon the weather and those unpredictable north winds that push snow and ice into the north country.

This year the season opens October 31, a date designed to catch the peak of the southward migration of the birds in early November. But some avid timberdoodle hunters find birds in the state long after the season has closed. In an effort to extend the late hunting, the current season will close January 3. But there still will be woodcock in the grouse and quail coverts in January and February. Frustrating to a game manager, isn't it?

In the best of its range the woodcock is a bird for the October guns, but it appears that does not hold true in the Old Dominion. There is a way you can help find out. The Office of Migratory Bird Management, U.S. Fish and Wildlife Service, Laurel, Maryland 20810 is conducting a woodcock study and they need hunter help. Write the Woodcock Productive Study at that office and offer your help.



Collecting and Interpreting HARVEST FACTS

BY JOE L. COGGIN
Game Biologist Supervisor

Commission photo by Harrison

of the total on the last day instead of the first day of the season due to the shift in "doe day." Now that herds have built up to carrying capacity in many areas, we may consider switching doe day to the first of the season to prevent overpopulation.

These observations are based on past years and grouping data. There may, of course, be local exceptions and certain years which will differ from these general conclusions.

We had another record legal deer harvest in 1974: a two percent increase over the previous year. This is due partly to some added doe days east of the Blue Ridge, where doe days this year have been decreased. However, seven western counties will harvest does on the last day for the first time since 1966, and we may have another record harvest in 1975. Yearling bucks averaged 89 pounds (hog-dressed weights) in 1974 and had 55 percent spikes west of the Blue Ridge. This compares with average weights of 86 pounds and 59 percent spikes the previous year for this age class. It is difficult to say what the record heaviest deer, bear or turkey is in Virginia because many weights have been estimated and others not weighed at official check stations. An excellent publication on the subject of trophy deer and bear is *EVALUATING BIG GAME TROPHIES*, compiled by Harry Gillam and Max Carpenter of the Virginia Commission. This bulletin contains the rules for measuring deer antlers and the system for measuring bear for the State Big Game Trophy Contest. It lists the all-time record deer head as a 26-point buck killed in 1962 in Isle of Wight County by Peter F. Crocker of Windsor, Virginia.

Probably the heaviest bear ever killed in Virginia is one thought to weigh about 700 pounds, killed by W. N. Haldeman of Hampton in the Dismal Swamp in 1944. No official weight was obtained because the hunters could not get it out of the Swamp. This is listed in *BLACK BEAR IN VIRGINIA*, by Max Carpenter, along with other bear weight data. Both of the above publications may be obtained from the Game Commission in Richmond.

Bear and turkey harvest figures were lower in 1974 than in 1973. Analysis of trend data has indicated that the Virginia bear kill fluctuates from year to year, rise or fall in harvest depending partly on abundance or paucity of mast.

EVERY year hunters are required to register deer, bear, pheasant and turkey kills at various check stations located in all Virginia counties. These game check stations are operated without charge to the Game Commission by business owners interested in wildlife and willing to play an important role in its welfare. This involves a great deal of work for many operators and often some time and travel for the hunter to get his game to a check station, but these efforts are of enormous value in the decision-making processes for management and setting seasons. Some stations are manned on certain days to collect technical data such as deer age, antler development, yearling buck weights and other information for determining production and the general physical condition of Virginia deer herds. This article is concerned primarily with the valuable and interesting information obtained from tags turned in to the Commission by check station operators.

Every year seems to produce a different set of variables because season length and bag limits are frequently altered to accomplish definite management objectives. A good example of what this does to the data is seen in Table I, "Deer Harvest By Day and Week." Notice that on Monday the first day of the season we harvested nearly 66% of the total in the 1964-66 average, but in 1974 we harvested only 22% of the total on the first day. What happened? It was learned that by shifting the doe day to the last day of the season we would harvest a smaller percent of the does than if it were on the first day, and this permits the herd to build up at a faster rate. Thus, in 1974 we were harvesting a larger percent

Due to higher production potential, turkeys are capable of bouncing back at a rapid rate. This fall we will be harvesting hen turkeys in several western counties which have previously had a "gobblers only" fall season.

Results of the season's first week are a very important part of total deer kill west of the Blue Ridge. I have already mentioned that the highest percentage of deer harvested will be on the day that does may be taken, but the first day of the season is a close second even when doe day is the last day. Notice the influence of the first week of deer season on the wild turkey and bear harvest, Tables III and IV.

The first deer week shows second highest percentage of the total turkey harvest, about ten percent below the 38.5 percent of the first week. But for the 1973 bear harvest the highest percent of the kill is the first week of deer season when dogs could be used to hunt bear. You probably have already surmised that the high percent of big game harvested during the first week of deer season is due to the heavy hunting pressure during this time. Even though the bear season opened the second week of the western deer season in 1974, the highest percent of the total bear harvest (26%) was during that week, followed very closely (24%) by the following week.

You can pick out the details that may interest you from Table V, but it is immediately evident that the rifle is the principal weapon used to harvest the largest percentage of deer and bear (89% and 83% respectively). The picture changes when talking about the wild turkey harvest. Here we have 78% of the harvest taken with a shotgun. Most of the 19% downed with a rifle are harvested during deer season while hunters are primarily hunting deer. Who is going to turn down a shot at a turkey?



Most Virginia hunters are residents having state licenses, and more than half of them harvest deer and bear on public land. Here again something different shows up concerning the percent of turkeys harvested on private and public land as compared to the deer and bear harvests. Most of the turkeys are harvested on private land during the spring and fall seasons. I am pointing this out because the dates shown in Table V under land classification for turkeys (1964-67) are not the same as for deer (1974) and bear (1973). Since turkey populations have generally increased on public lands during the past six years, these figures may have changed a little.

There are many things that can be said from the data shown here and other data collected by Virginia volunteer check station operators. We know that we have some of the best kill data in the nation because of the complete count of the legal harvest.

TABLE I
DEER HARVEST BY DAY & WEEK 1964-66 AVG. (DOE ON FIRST DAY) COMPARED WITH 1974 (DOE DAY ON LAST DAY OF SEASON)

First Week	1964-1966 AVG.		Second Week	1964-1966 AVG.	
	1966	1974		1966	1974
Mon	65.8	22.2	Mon	1.1	2.0
Tues	8.4	10.6	Tues	1.0	1.6
Wed	4.6	3.9	Wed	.6	1.7
Thurs	4.2	3.0	Thurs	2.5	3.4
Fri	3.2	4.0	Fri	1.1	3.0
Sat	4.2	6.7	Sat	2.2	37.9

TABLE II
STATEWIDE DEER, BEAR, AND TURKEY HARVEST

	1973	1974
DEER	60,798	61,989
BEAR	295	214
TURKEYS:		
FALL	4,215	3,341
SPRING	2,522	2,199
TOTAL:	6,737	5,540

(Continued on next page)

Supervising Game Biologist Ned Thornton checks Frederick County deer.

Commission photo by Harrison

TABLE III
WILD TURKEY HARVEST BY WEEK (Percent of Total)
1964-66 AVERAGE

1st Early Week	2nd Early Week	1st Deer Week	2nd Deer Week	3rd Week	4th Week
38.5	16.1	28.4	9.8	3.4	3.9

TABLE IV
BLACK BEAR HARVEST BY WEEK 1973 - PERCENT OF TOTAL HARVEST (284 ANIMALS)

Bow Season	Early Gun Season	Week Before Deer	1st Week Deer	2nd Week Deer
2.8	3.9	31.0	37.0	7.0
Dec. 3 - 8	Dec. 10 - 15	Dec. 17 - 22	Dec. 24 - 31	
4.9	6.7	3.5	3.2	

TABLE V
HOW AND WHERE DEER, BEAR AND TURKEYS ARE HARVESTED IN VIRGINIA (PERCENT OF TOTAL)

	Deer (Percent)	Bear (Percent)	Turkeys (Percent)
Rifle	89	83	19
Shotgun	9	11	78
Bow	2	1	—
Pistol	.2	1	—
Unknown	—	4	3
License Type			
State	78	89	70
County	6	4	13
Non-Resident	12	2	6
Landowner	3	0	1
Over 70	1	2	.2
Unknown	—	2	10
Land Classification			
		Fall	Spring
Public land	54	75	29
Private land	46	24	60
Unknown	—	1	11

County or City	1972 - 1973			1973-1974			1974-1975		
	Deer	Bear	Turkey	Deer	Bear	Turkey	Deer	Bear	Turkey
Accomack	112	..	..	162	..	..	224	..	..
Albemarle	682	9	31	816	46	21	854	6	34
Alleghany	739	4	214	895	7	250	985	7	187
Amelia	1,223	..	36	1,748	..	26	1,832	..	36
Amherst	285	3	17	411	13	34	406	5	16
Appomattox	412	..	16	613	..	12	741	..	19
Augusta	1,095	16	311	1,314	13	387	1,381	23	289
Bath	1,686	4	418	1,771	6	471	2,247	12	309
Bedford	245	8	17	409	7	13	475	16	15
Bland	272	..	65	292	6	26	328	8	20
Botetourt	1,165	11	311	1,170	10	296	1,212	26	232
Brunswick	431	..	22	800	..	7	754	..	13
Buchanan	..	..	..	..	..	..	..	..	..
Buckingham	1,784	..	55	2,623	4	29	2,641	..	57
Campbell	94	..	8	160	..	12	179	..	10
Caroline	1,348	..	31	1,621	..	31	1,318	..	41
Carroll	74	..	..	54	..	..	62	..	..
Charles City	717	..	..	972	..	..	1,084	..	..
Charlotte	125	..	11	212	..	26	307	..	29
Chesapeake	..	..	..	..	..	..	..	..	..
Norfolk	282	2	..	334	6	..	357	3	..
Chesterfield	1,003	..	45	1,431	..	22	1,401	..	28
Clarke	87	..	..	179	..	37	221	..	33
Craig	932	3	149	1,067	4	166	969	4	157
Culpeper	236	..	10	300	..	7	275	..	21
Cumberland	1,221	..	24	1,801	..	21	1,660	..	53
Dickenson	8	..	..	13	..	..	21	..	..
Dinwiddie	1,151	..	40	1,486	..	27	1,501	..	38
Essex	139	..	7	118	..	4	190	..	5
Fairfax	17	..	1	11	..	..	12	..	..
Fauquier	566	..	56	616	1	49	696	..	24
Floyd	60	..	..	69	..	..	61	..	..
Fluvanna	1,531	..	22	2,332	..	9	1,882	..	26
Franklin	152	..	13	203	..	4	209	..	3
Frederick	799	..	145	899	..	182	959	..	136
Giles	542	..	223	327	5	271	321	9	223
Gloucester	315	..	..	384	..	..	370	..	..
Goochland	572	..	15	916	..	12	903	..	21
Grayson	467	..	41	549	..	22	548	..	19
Greene	59	5	3	81	21	4	75	5	3
Greensville	449	..	12	480	..	7	598	..	5
Halifax	206	..	25	287	..	20	425	..	53
Hampton	..	..	..	..	..	..	..	..	..
Newport News	227	..	..	260	..	..	272	..	..
Hanover	202	..	..	262	..	..	362	..	..
Henrico	215	..	..	423	..	..	336	..	..
Henry	7	..	..	11	..	..	16	..	..
Highland	908	3	258	1,168	4	282	1,179	1	185
Isle of Wight	569	..	..	693	..	..	656	..	..
James City	441	..	..	590	..	..	440	..	..
King & Queen	297	..	23	280	..	18	369	..	17
King George	347	..	..	384	..	..	338	..	..
King William	451	..	3	489	..	10	533	..	9
Lancaster	282	..	..	399	..	..	441	..	..
Lee	57	..	..	60	..	..	73	..	..
Loudoun	410	..	16	466	..	20	602	..	12
Louisa	628	..	26	1,237	..	26	1,137	..	41
Lunenburg	221	..	5	266	..	4	356	..	9
Madison	64	10	2	67	18	2	102	18	2
Mathews	35	..	..	55	..	..	56	..	..
Meklenburg	130	..	..	181	..	1	239	..	4
Middlesex	78	..	..	65	..	..	88	..	..
Montgomery	78	..	110	107	..	108	87	3	84
Nansemond	..	..	..	..	..	..	..	..	..
(Suffolk)	416	5	..	458	2	..	457	3	..
Nelson	250	4	26	348	18	20	415	7	14
New Kent	797	..	0	917	..	..	899	..	..
Northampton	11	..	..	12	..	..	26	..	..
Northumberland	384	..	..	487	..	..	514	..	..
Nottoway	781	..	7	1,129	..	4	1,007	..	10
Orange	262	..	17	277	..	16	290	..	25
Page	351	8	27	332	9	40	385	17	29
Patrick	252	..	..	360	..	..	356	..	..
Pittsylvania	202	..	12	305	..	4	386	..	8
Powhatan	1,051	..	20	1,693	..	21	1,694	..	16
Prince Edward	304	..	21	364	..	13	494	..	15
Prince George	1,084	..	15	1,668	..	14	1,259	..	11
Prince William	388	..	22	463	..	11	326	..	14
Pulaski	154	1	17	194	1	15	189	2	13
Rappahannock	297	1	8	408	14	15	359	..	8
Richmond	225	..	..	330	..	..	353	..	..
Roanoke	46	..	49	71	..	21	40	..	..
Rockbridge	786	11	363	802	14	425	887	13	232
Rockingham	1,902	20	192	2,201	33	215	2,235	16	140
Russell	22	1	2	28	1	4	48	1	4
Scott	57	..	..	53	..	..	51	..	..
Shenandoah	1,190	4	173	1,247	8	237	1,276	..	151
Smyth	345	8	29	376	4	21	339	1	11
Southampton	2,783	..	..	2,900	..	..	2,723	..	..
Spotsylvania	515	..	14	682	..	15	766	..	17
Stafford	502	..	9	592	..	8	543	..	12
Surry	951	..	..	942	..	..	1,323	..	..
Sussex	1,393	..	..	1,633	..	..	1,731	..	..
Tazewell	75	..	23	91	4	9	92	5	6
Virginia Beach	40	..	..	71	..	..	84	..	..
Warren	456	1	42	516	9	75	428	..	48
Washington	140	2	3	163	2	3	157	..	6
Westmoreland	151	..	..	139	..	..	164	..	..
Wise	90	..	..	55	..	..	46	..	..
Wythe	441	1	81	504	5	33	482	3	30
York	751	..	..	608	..	..	813	..	..
TOTALS	48,775	145	4,009	60,798	295	4,215	62,003	214	3,346

Turkey harvest figures do not include spring kills.

A HUNTER IS MADE

By ED PEARCE
Orlando, Florida



Illustration by Bob Hines, courtesy Olin Mathieson Chemical Corp.

WHEN I was growing up, it was like father, like son - quite THE thing for a son to follow in his father's footsteps. This desire of son to copy father extended beyond the means of making a living and into the sports of hunting and fishing.

When I was six, my father started taking me on fishing trips, and we spent many happy hours together on both the Little Talapoosa and the Chattahoochee rivers.

At 11, I was anxiously waiting for one more birthday, because Dad had promised I could start hunting at 12. But my father's accidental death robbed me of that chance. I was at a crossroads until an uncle took me under his wing and, in many ways, replaced my father. It was from him that I learned how to hunt and enjoy the sport.

Time passed and I married at 20. It wasn't long before I began anticipating the good times my son and I'd have when he was big enough to carry a gun. Unfortunately, I can't pass my love of hunting along to my own son; I've only a daughter, who enjoys fishing but not hunting.

My next-door neighbor was rarely at home because his work as a salesman required that he travel constantly. Occasionally his son Jerry, 10, a daily playmate of my daughter Joanne, went fishing with us but never cottoned to it. He often borrowed magazines and books from my hunting library and displayed interest in my abiding hobby.

When he was about 12, I came home one Friday night and began gathering my hunting gear for a weekend deer hunt. When I stepped out the back door to hang my hunting jacket to air, Jerry came over and asked if he could go on the hunt with me. I was more than pleased, for members of my hunting club frequently brought their sons and Jerry would have company of his own age.

That started it. Hunting became such an obsession with Jerry that it was almost unbelievable. He was

spending his out-of-school hours either at a sporting goods store, buried in a book on hunting, or visiting some of his hunting friends he'd made at our camp. He often came over to see me and discuss hunting. His thirst for knowledge on even the most minute phase of the sport was insatiable.

I took Jerry hunting whenever I went. This threw us together just about every weekend and holiday. I became very attached to him as I watched him grow the next two years. It was almost as if I had my own son. He was a manly little fellow at 12, small for his age, but sturdy, self-reliable and willing to tackle any job at the camp. He cut firewood with the other boys, made up his own bunk, and willingly pitched in on all camp duties. It wasn't long before he was the official fire-maker. And he was the first one up in the morning, ready to go hunting. He realized early (after witnessing the loss of some shirttails) how important it was to become a good marksman, so we were to spend many hours on a nearby rifle range.

On every trip, he learned something new. He constantly questioned hunters in the camp and never forgot what he learned. While he wasn't allowed to carry a gun on the hunt until he was 14, he cheerfully trudged along on stalk hunts and manfully bore the silence necessary in the hunting stands. I taught him to use binoculars properly and he spent his time in the stands slowly sweeping the area searching for deer.

At 14 he was ready to hunt, we decided. I presented him with my second rifle, an old but still good 8mm Mauser. He lavished full affection on it, cleaning it daily, practicing dry-firing at home and keeping a high polish on it. Meticulous in the area of firearms safety, Jerry could cite the regulations verbatim. On the range, it wasn't many months before he was matching me shot for shot.

On the opening day of the next deer season, we were first in our stand. We'd scouted the area several days before, located a juncture of two well-traveled trails

A Hunter is Made (From previous page)

and erected our stand nearby. As daylight came and visibility improved, he started his sweep with the binoculars. Thirty minutes later, we heard a shot from a nearby stand. To me, it seemed only a minute before Jerry was aiming his own rifle. I swung my scope-mounted .270 down the right trail, spotted a small, bounding buck and flipped off the safety. Jerry's shot came first. The buck swapped ends, staggered a few steps and dropped. Needless to say, I was second down the steps to the ground. I called to him to be careful and make sure that the buck was dead. Again, I needn't have worried for he followed the book. When I arrived on the scene, Jerry was standing 10 feet away holding his gun on the buck which was dead: a good clean kill.

No buck fever for that boy. But after he knew the buck was dead, I did detect a slight paling of his cheeks and shaking of his hands. It was his first deer and he had a hard time to keep from jumping up and down. I felt a distinct sense of pride, just as if he were my own son. He'd learned his lessons well.

We carried the deer to the jeep and made a photo; today it's one of my treasured memories. As I field-dressed the deer, I explained each step, including the saving of the heart and liver. Jerry was all eyes and his questions came fast and furiously. Nothing would do but that he also get bloody in helping me clean out the deer.

As we arrived at camp, Jerry's lessons continued - this time in properly caring for the meat. Together, we bled the deer further, hung him about 10 feet off the ground and spread the cavity with two sharpened sticks for airing. I explained that many hunters had killed a deer but failed to get the ultimate enjoyment from their success because they didn't know how to keep the meat sweet nor how to cook it. After removing the membrane from heart and liver, we placed them in salt water overnight. The next morning, we removed the heart and liver from the salt water, washed them clean, sliced them thin, dipped them in a mixture of salt and pepper, and grilled them over hot coals after adding onions.

Jerry had come the full hunter's cycle; he was now an accomplished and successful deer hunter and had sampled his own kill. Thus was a hunter made.

On the return home later that day, we dropped the deer off at the butcher's shop where it would be cut up, packaged and placed in our locker. Jerry haltingly tried to thank me for his chance to hunt. I assured him that I'd gotten quite a kick out of teaching him and seeing him make his first kill. Just before we reached home, he revealed that he'd like to invite some of his school friends for a celebration dinner, if I'd cook it for him. That venison roast dinner was another milestone in his life. As always, he watched every step of the preparation and cooking of the meat.

When his kill was reported in the evening paper a few days later, Jerry was a neighborhood hero.



Commission photo by Kesteloo
Chuck Hamm's lunker largemouth taken August 8, 1971, from Lake Gaston weighed 13 lb. 4 oz.

Virginia Lunker Fisherman

By BOB GOOCH
Troy

CHARLES (Chuck) D. Hamm, a Richmond, Virginia, educator, is a trophy fisherman who does exceedingly well in the waters of his home state. His Virginia Commission of Game and Inland Fisheries citations include a 13-pound largemouth bass, a 12-pound walleye, and a 6½-pound smallmouth bass, all trophy fish in Virginia waters. A year ago in July he visited Lake Gaston on the Virginia-North Carolina border and landed an 11-pound largemouth bass.

Hamm needed a northern pike for his collection of trophies, and a week after his successful Gaston bass trip he spent two days at Orange County Lake for the express purpose of catching a citation pike. The 124-acre Commission of Game and Inland Fisheries lake is noted for its pike fishing.

The trip was even more successful than the Gaston bonanza. Fishing with live minnows, Hamm landed seven pike in all and five met the 26-inch minimum size limit. Two pike, one a 7-pounder and the other slightly smaller at 6½ pounds, qualified for citations. The citation minimum is 6 pounds. He released all of the pike except for the two citation fish.

In addition to the pike, Hamm's catch included a 6½-pound largemouth bass, a smaller 3½ pounder, and two channel catfish tipping the scales at 6½ and 5 pounds. While he fished two long summer days, all of the prize fish were taken during an action-packed 8 to 10 a.m. period one morning.

Hamm used big minnows - 6-inchers - and ¾-ounce sinkers to keep them down. He also used a large 1½-inch bobber so the minnows could not submerge it, and suspended his lively bait at a depth of approximately 4 feet.

With bass, pike and walleye trophies on his wall, Hamm has his sights set on a citation muskellunge. He needs a 6-pounder to qualify. Even the most pessimistic angler would not bet his favorite reel that Chuck Hamm will not get his musky.



Edited by MEL WHITE

Whale Symposium November 9

The great whales and their smaller relatives will be the subject of a national public conference at Indiana University in Bloomington, Indiana on November 9 through November 12, 1975. The National Whale Symposium will gather together experts from the social and natural sciences, arts and humanities, and concerned citizens to consider the plight of whales and dolphins. Through such fields as international law, biology, literature, folklore, and music, the Symposium will explore the past and present relationships that man has had with the whales, and formulate what mutually beneficial relationships might be pursued in the future. The National Audubon Society is joining Indiana University and other national organizations in sponsorship. For information write: The National Whale Symposium, 605 South Fess Street, No. 3, Bloomington, Indiana 47401.

Wilderness Ski Tours Offered

The Wilderness Society is sponsoring a series of wilderness ski and showshoe tours this winter. The tours are open to the public.

Jill Rowland, administrator of the trip program for the Society, noted that ski and snowshoe touring has become increasingly popular during the last few years. She said that her organization has been receiving a large number of requests to include ski and snowshoe trips in its wilderness outings program.

The ski and snowshoe tours are scheduled for December 1975 through March 1976. "These tours offer a unique experience in winter wilderness travel," according to Miss Rowland. "For thousands of years, cross-country skiing has been a principal means of transportation in the Scandinavian countries. It involves a simple method of glide-walking over the snow. Americans recently 'discovered' this inexpensive and enjoyable form of recreation," she said. Snowshoeing has been a primary means of winter travel throughout the

northern hemisphere for a like period of time.

There are no age limitations, she pointed out, and all members of the family can take part. The only requirements are good health and a real desire to tour in a snow-covered environment.

The Society's winter trip combines ski and snowshoe touring with wilderness trips of two to five days in the proposed Holy Cross Wilderness. "Here, high in the beautiful Colorado Rockies," she said, "skiers will have an unusual opportunity to enjoy their winter sport without the problem of overcrowded lifts."

To obtain more information or an application, write or call The Wilderness Society, Trip Department, 4260 East Evans Avenue, Denver, Colorado 80222, telephone 303/758-2266.

Scotch Ducks High on Pollution

Tens of thousands of native ducks and 30,000 scaup that migrate from Iceland for the winter congregate at the outfall of Edinburgh's untreated sewage as it pours into the Firth of Forth. Bede Pounder of the Scottish Ornithologists' Club has carefully observed the habits of scaup, goldeneyes, pochards and eiders, and he attests that they thrive on the polluting wastes. The ducks find seeds and barley husks washed down from the streets and are particularly attracted by the discharges from whiskey distilleries and breweries. No one is sure what will happen when this nutritive flow is suddenly turned off.

Lackey To Study Bass

The Bass Research Foundation recently awarded Dr. Robert T. Lackey, Associate Professor of fisheries and wildlife science at Virginia Tech, a two year grant to study largemouth bass populations. Dr. Lackey's research will involve development of a generalized population dynamics theory to explain how bass populations fluctuate.

READINGS IN WILDLIFE CONSERVATION, edited by James A. Bailey, William Elder and Ted. D. McKinney (722 pages illustrated with photographs, drawings, figures and tables. The Wildlife Society, 3900 Wisconsin Ave., N.W., Suite S-176, Washington, D.C. 20016; 1975. \$8.00).

This book is a composite of writings by noted authors selected to present a broad perspective of wildlife conservation. The editors contend that "wildlife conservation is based upon knowledge from many sciences - ecology, chemistry, physics, mathematics, statistics, genetics, zoology, botany, economics and sociology." Wildlife conservation, they say, has need for the specialist and the generalist. The specialist should have knowledge broad enough to comprehend the interrelated roles of the conservation activities. He should be aware, they say, of historical influences upon today's conservation and should be sensitive to human values and the philosophical question of what constitutes wise use. The generalist should be adequately trained in the sciences so that he can communicate with specialists and can use scientific information to establish realistic goals for solving conservation problems, the editors report.



Buckingham Co. turkey harvested by George Rowe (l). J. W. McEnerney (r) helps hold the 18¼-pound bird.

Know Your WARDENS

Text and Photos by F. N. SATTERLEE
Information Officer

GARLAND CLAY FENTRESS
*Game Warden-Pilot
Hampton Roads District*

GARLAND Fentress, more commonly known as "Jack," was born and raised in Princess Anne County, Virginia, where his father was a farmer and a part-time waterfowl guide on Back Bay. The influence of the rural atmosphere, combined with exposure to waterfowl and waterfowl hunting, had a profound effect on Jack during his childhood and teen years. Added to this was his meeting and subsequent close friendship with one of the early Virginia game wardens, Roland Halstead. Roland's intimate knowledge of waterfowl, wildlife and the outdoors, which he shared with Jack, helped him to understand and appreciate the things of nature.

In October, 1941, following his graduation from Creeds High School, Jack enlisted in the United States Coast Guard. Eventually he was placed in command of a landing craft, vehicle and personnel (LCVP). In this capacity he actively participated in seven of the most hotly contested Allied invasions in the Pacific Theater. They included the landings on the Gilbert Islands; Guam; Kwajalein and Eniwetok in the Marshall's; Peleliu; Mendora and Luzon. In spite of extremely heavy opposition by the Japanese on each of these occasions, Jack came through unscathed. However, just before his discharge in October, 1945, he was seriously injured when the truck in which he was a passenger was involved in an accident.

Following his discharge, he returned to help his father on the farm. Subsequently, he used his G.I. Bill benefits and took flight training. He soon learned of an opening with the Game Commission as a warden-pilot, applied, and was accepted. After approximately two years, he transferred to the Department of Motor Vehicles, where he worked as a license examiner. In 1961, he returned to the job of warden-pilot in the Hampton Roads District with the Commission.

Jack is widely known throughout the Commonwealth both in his position as warden and also in the aviation community in which, among other things, he is a member of the International Association of Natural Resource Pilots. Satisfaction with his work is multifaceted. The love affair with nature, which began so long ago, plus his interest in sportsmen and flying, all mold together in an extremely satisfying combination.

He is married to the former Frances Louise Maupin of Athens, West Virginia. Jack and Frances have two children, and make their home in Pungo, Virginia.



Jack Fentress assists John Spruill, left, A & P mechanic, with annual inspection of Game Commission aircraft.





Edited by ANN PILCHER

Winning Essayist Now Wildlife Research Director

High school participation in the 10th and 12th annual Wildlife Essay Contests, cosponsored by the Virginia Division Izaak Walton League of America and the Virginia Game Commission, spurred Gene W. Wood's interest in the field of natural resources. His sophomore entry won the \$50 grand prize and his senior effort netted a \$400 college scholarship. The Bedford native earned a bachelor's degree in forestry from Virginia Polytechnic Institute in 1963, a master's degree in 1965 from Pennsylvania State University, where he studied in the School of Forest Resources, and a 1971 doctorate in agronomy from Penn State. Dr. Wood is now assistant professor of forest wildlife ecology at Clemson University and director of research at South Carolina's Belle W. Baruch Wildlife Foundation on 10,000 acre Hobcaw Barony, home of the late Bernard Baruch, adviser to presidents. During the 19th century Hobcaw marshland was once part of the most productive rice culture in the United States.

Miss Baruch's grant to Clemson in 1965 created the Belle W. Baruch Professorship

in Forestry. Today the university program includes research as well as instruction in forestry, marine biology, care and propagation of wildlife and plantlife of the state; special seminars, lectures and symposia for scientists and advanced students; professional advice on the operation of Hobcaw as a research facility. One project underway at Hobcaw is a 10-year study which will compare all activities of songbirds, including nesting, feeding, and movement. Another conservation project deals with the wild pig. Body measurements are taken to determine growth and seasonal weight changes; blood samples by cardiac puncture, for blood chemistry studies. Information obtained is sent to Patuxent Wildlife Research Center in Maryland.

IWL Youth Conference

Six Virginia Izaak Walton League Chapters sponsored 13 students to attend the IWL Youth Conference, "Exploring the Scene by Young Americans," held at Drake University, Des Moines, Iowa, on July 9-13 in conjunction with the National IWLA convention.

Those selected by the Virginia Selection

Committee and approved by the national IWLA office included John J. Britton, Jr., Casey Key, Hal Purdy and Gail Wiles (Arlington-Fairfax Chapter IWL, sponsor); Janet Lee Mangum (Fauquier); Emmitt C. Witt, III (Fredericksburg-Rappahannock); John Timothy Burkholder, David Allan Humphrey, Rhana Smoot, Elizabeth Carter Stoll and Stuart Tanner (Lynchburg); Hope Fleming (Prince William); and Tanya Hatcher (Valley Ladies).

Forestry Scholarships Awarded

Forestry scholarships awarded by Virginia Forests, Inc., this fall went to Kirk M. Brumback of Berryville, a VPI&SU sophomore (\$1500 3-year scholarship); Dale M. Roller, Weyers Cave, Thomas C. Stanley, Cumberland, and Everette L. Kline, Jr., Timberville, Tech freshmen, \$500 each. For the second year in a row, the Virginia Tree Farm Committee has awarded a \$500 scholarship, this year to James C. Pittman, of Richmond.

Virginia Youth Work and Study

Approximately 112 Virginia students were chosen to work in six areas of Virginia as a part of the US Youth Conservation Corps Environmental Science program sponsored by federal and state agencies. According to information received from the office of the YCC state recruiter Franklin D. Kizer, State Dept. of Education Supervisor of Science, Virginia boys and girls aged 15 to 18 participated in the work-study program at one of six camps: Camp Mitchell (1½ miles from New Castle on Rte 615); Apple Orchard (8 miles north of Peaks of Otter on Blue Ridge Parkway; former Bedford Air Force Station); Hungry Mother State Park (Marion); Passage Creek Camp (Edinburg); Wilderness (Locust Grove); Douthat State Park (Clifton Forge). Camps ranged from 6 to 8 weeks in length, summer stipend varying from \$231 to \$390.

Courtesy The Bedford Bulletin-Democrat



Virginian Gene Wood, a leader in today's world of environmental research and protection, lives in Georgetown, S.C., with his wife (a case worker in the Alcohol and Drug Abuse Commission), and two young sons.

ON THE WATERFRONT



Edited by JIM KERRICK

Cruising Guides

With today's larger boats and man's adventurous spirit, the world has been reduced - you can cruise anywhere in the world. But whether it's a one-day cruise across the lake or down the river, or an excursion to a distant country, the Outboard Boating Club of America advises that you be prepared for the unexpected.

Before casting off, give your boat and gear a thorough check. Make sure you have all the federally required safety equipment aboard and that your rig meets state requirements. The OBC has a complete set of state boating regulations broken down into four state regions (Northeast, North Central, Southern and Western). Write for details: OBC, 401 North Michigan Ave., Chicago, Illinois 60611.

Don't take anything for granted - know where you're going and tell someone your cruising route plus time of arrival and return home. This saves wear and tear on nerves of family and friends, and if something should happen, a cruise plan will aid rescuers in locating you.

Charts of interest to those planning a cruise are available from the U.S. Army Corps of Engineers and the National Oceanic and Atmospheric Administration. Official charts of navigable (federal) waterways can be obtained from both; information on "locking through" procedures and navigation rules in and around locks can be obtained from the Corps. Both of these agencies have offices in principal cities throughout the country. Information can also be obtained from headquarters: U.S. Army Corps of Engineers, Civil Works, Recreation-Resource Management Branch, DAEN-CWO-R, Washington, D.C. 20314, or National Oceanic and Atmospheric Administration,

Rockville, MD 20852.

OBC also publishes a handy booklet giving data on docking facilities, fueling, etc., at popular boating areas around the country. "Sources of Waterways Information," broken down into five regions, lists state agencies, such as conservation departments and departments of natural resources, and private firms which can supply information needed for cruising. Most of the literature is free; other is available at nominal cost.

Information on Canadian waterways can be obtained from the Canadian Department of Transport in Ottawa and from the individual provinces' tourism bureaus.

Boating magazines are also a good source of data and many publish cruising guides as well as give helpful tips on where and how to cruise. Major oil companies also publish cruising guides for all areas of the U.S. and Canada. These maps are available from oil companies' marine dealerships or their main offices.

No matter what sort of cruise you plan, learn everything you can about the lakes and rivers along the way before leaving. Learn how to read buoys. The two most familiar ones are the red nun and the black can. Red nuns have even numbers and mark the right, or starboard, side of channel or river going upstream from the mouth. Black cans have odd numbers and mark the left, or port, side of channel. Buoys marking mid-channel have black and white vertical stripes. Those marking obstructions or junctions are striped horizontally red and black with the top band marking the best channel.

There are many places where a boater can go for scores of miles without finding a source of supplies within reasonable distances - a little preparation ashore can mean a safe and enjoyable cruise.

Breakers and Beaching

Forward edge of a wave is great for surfers, but it's no place for small boat skippers. If at all possible, boatmen should stay clear of breakers. If an emergency arises, and beaching becomes necessary, here's what to do:

-Find a stretch of beach free of rocks and don't get too close while investigating.

-Keep boat aligned with wind and waves.

-Get about halfway up the backside of a wave and use throttle to keep the boat there.

-When the boat hits bottom, get out and head for higher ground before the next wave hits. If there's enough time, bring the bow line with you and secure it to some object higher up on the beach.

-You'll probably be able to get the boat out of harm's way if you haul in on the line each time a wave breaks over the beach.

Fueling

Observation of a few simple safety rules is essential to safe fueling of pleasure craft.

First and most important of all, put out that cigarette while fueling, along with all other flames, and shut off spark-producing machinery. Have a filled fire extinguisher handy. Keep nozzle or fill can in contact with the tank to prevent a static spark. Avoid spilling fuel; don't try to fill tank to the brim.

Take removable tanks from the craft and fill them on the docks.

On craft of closed construction with permanent tanks, close all hatches and ports while fueling. Then open hatches and ports for ventilation, and run the bilge blower for at least five minutes. Sniff in lower part of tank and engine compartments; if you smell gasoline, don't start the motor.

Bird of the Month:

The Savannah Sparrow



By JOHN W. TAYLOR
Edgewater, Maryland

FEW among us get to know the Savannah sparrow well. Shy and secretive, it does not make friends easily. Even those acquainted with it can become frustrated with its skulking, mouse-like manner, its refusal to flush unless practically stepped on.

Compounding the difficulty is its nondescript plumage. Streaked with brown, on a grayish-ochre ground, it shows no easily noticed field marks, unless one can see the yellowish cast above the eye and in front of the bill. And even this aid to identity is lacking in immature birds.

Likely to go unnoticed as well is the bird's song: two weak, thin trills preceded by several faint chips. Except at very close range, only the last two notes are audible, and from any distance at all, the whole performance is likely to be passed off as the effort of some insect.

Yet, despite such inauspicious appearance and demeanor, the Savannah sparrow is a successful species. In one form or another, and at one season or another, it inhabits nearly the whole of the North American continent. It summers beyond the limit of trees from Labrador west to northern Alaska and south to Virginia and lower California. Its winter range includes Cuba and Guatemala, as well as most of the lower United States.

Virginia can just barely claim the Savannah as a nesting bird. Nests have been found at Chincoteague Refuge, just over the Maryland line. Most likely they have bred in other portions of the State as well, since they nest sporadically in the Maryland piedmont, and regularly in the higher mountains of both Maryland and West Virginia. It should especially be looked for in Highland County, as it has nested just over the state line in Pocahontas County, West Virginia.

Locally, its distribution during the colder months is primarily coastal. On the Eastern Shore it is easy to find Savannahs (345 were noted on the 1974 Christmas census at Cape Charles, and 302 were counted at Chincoteague). They are even more concentrated farther south on the coast: 437 were noted on the Back Bay census. Away from the coast, in these latitudes, wintering Savannahs are few and far between.

A larger, sandy-colored race of the Savannah sparrow, the Ipswich sparrow is a winter resident of the outer beaches south to Georgia. It nests only on Sable Island, a narrow, thirty mile strip of dunes off the Nova Scotia coast. Paler, and nearly an inch larger than the other Savannahs, it is recognizable in the field, though most taxonomists no longer give it full specific rank.



The Marlin Safety Pledge

I pledge myself as a hunter to respect the environment which has made my sport possible.

I pledge my support of state and national conservation programs and all hunter safety courses.

I pledge to help protect my rights as an American to hunt and shoot by practicing the safe and proper use of firearms and obeying all game laws and safety rules.



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